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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,560	09/15/2003	Tomoyoshi Yokota	Q77127	7979
23373	7590	12/09/2004	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			NGUYEN, HANH N	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/661,560

Applicant(s)

YOKOTA ET AL.

Examiner

Nguyen N Hanh

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☒ Claim(s) 5 and 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujiwara et al.

Regarding claim 1, Fujiwara et al. disclose a commutator motor, comprising: a stator comprising stator yoke (30 in Fig. 8C) having tubular shape and extending in its axial direction and having an inner peripheral surface, and a field magnet (40 in Figs. 1-11) fixed to the inner peripheral surface of stator yoke for providing field magnetic pole in the stator; and an armature (60 in Fig. 4) rotatably disposed within the stator; wherein the stator yoke constituted by one of (a) a plurality of plate-like annular bodies (32 in Fig. 8) having iron parts (Col. 4, lines 1-5 disclose annular body 32 made by silicone steel sheet and silicone steel is a soft magnetic iron) which are stacked on each other coaxially in the axial direction of the stator yoke (Fig. 8C), and (b) a plurality of substantially identically configured iron plate-like arcuate bodies disposed at such position as form a part of virtual annular bodies and which are stacked on each other coaxially in the axial direction of the stator yoke; and wherein the plurality plate-like annular bodies (32) or the plate-like arcuate bodies adjacent to each other in the stacked direction are fixedly connected each other by caulking (by laminating silicone

steel sheet as described in Col. 4, lines 1-5. The Examiner interprets caulking as laminating because Webster's defines "to caulk" as "to stop up and make tight against leakage and "to laminate" as to unite by an adhesive or other means")

Regarding claim 2, Fujiwara et al. also disclose a commutator motor wherein at least one pair of convex portions protrude radially inwardly from the inner peripheral surface of the stator yoke for retaining the field magnet between the convex portions.

Regarding claim 3, Fujiwara et al. also disclose a commutator motor wherein the plurality of plate-like annular bodies (32 in Fig. 8) or the plate-like arcuate bodies have an inner peripheral surface defining the inner peripheral surface of the stator yoke, and wherein least one pair (Fig. 8 shows two pairs) convex portions protrude radially inwardly from inner peripheral surface of the plurality of plate-like annular bodies or the plate-like arcuate bodies for retaining the field magnet between convex portions.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujiwara et al. in view of Asao.

Regarding claim 4, Fujiwara et al. show all limitations of the claimed invention except showing the commutator motor wherein the stator yoke has a non-magnetic

portion at a substantially center portion of the field magnetic pole in a radial cross section of the stator yoke.

However, Asao discloses an electric machine wherein the stator yoke has a non-magnetic portion (recess 54 in Fig. 1) at a substantially center portion of the field magnetic pole in a radial cross section of the stator yoke for the purpose of reducing the electromagnetic resistance in the electromagnetic circuit (Col. 3, lines 57-60).

Since Fujiwara et al. and Asao are in the same field of endeavor, the purpose disclosed by Asao would have been recognized in the pertinent art of Fujiwara et al.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Fujiwara et al. by forming a non-magnetic portion at a substantially center portion of the field magnetic pole in a radial cross section of the stator yoke as taught by Asao for the purpose of reducing the electromagnetic resistance in the electromagnetic circuit.

***Allowable Subject Matter***

4. Claims 5 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if claim 5 is rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not show a commutator motor as described in claims 1 and 4 wherein the non-magnetic portion is defined by a hollow groove extending the axial direction of stator yoke and formed in the inner peripheral surface stator yoke.

***Conclusion***

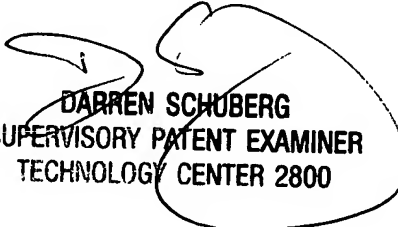
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh N Nguyen whose telephone number is (571) 272-2031. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg, can be reached on (571) 272-2044. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

HNN

December 3, 2004

  
DARREN SCHUBERG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800